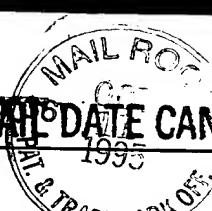
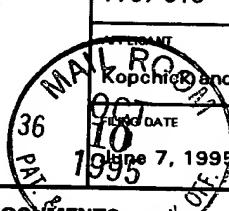


MAIL DATE CANCELLED

ATTY. DOCKET NO.  
7707-015SERIAL NO.  
08/488,164RECEIVED  
Kopchick and Chen36  
PAT.  
FILED DATE  
JAN 7, 1995GROUP 1812  
To-Be Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
CA	AA	3,664,925	May-1972	Sonenberg et al.	435	68.1	
	AB	4,056,520	Nov-1977	Sonenberg et al.	530	324	
	AC	4,443,539	Apr-1984	Fraser et al.	435	69.4	
↓	AD	5,079,345	7-Jan-1992	Becker et al.	530	399	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AE	75444	Sep-1982	EPA				
	AF	103395	Aug-1983	EPA				
	AG	161640	May-1985	EPA				
	AH	193515	Feb-1986	EPA				
	AI	2073245	Mar-1981	GB				
	AJ	9100870	24-Jan-1991	PCT				
	AK	US90/05874	12-Oct-1990	PCT				
↓	AL	US90/03550	24-Jan-1991	PCT				
↓	AM	US92/03743	6-May-1992	PCT				

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

CA	AN	Brems et al., 1987, "Helical formation in isolated fragments of bovine growth hormone", Biochemistry 26:7774-7778.
	AO	Swislocki et al., 1970, "In vitro metabolic effects of bovine growth hormone fragments in adipose tissue", Endocrinology 87:900-904.
↓	AP	Paladini et al., 1979, "The intriguing nature of the multiple actions of growth hormone", TIBS 256-260.

<i>CH</i>	AQ	Hara <i>et al.</i> , 1978, "Recombination of the biologically active peptides from a tryptic digest of bovine growth hormone", <i>Biochemistry</i> 17:550-556.
	AR	Chen and Sonenberg, 1977, "Revision of the amino acid sequence of an active fragment of bovine growth hormone", <i>J. Biol. Chem.</i> 250:2510-2514.
	AS	Hammer <i>et al.</i> , 1985, "Production of transgenic rabbits, sheep and pigs by microinjection", <i>Nature</i> 315:680-683.
	AT	Palmiter <i>et al.</i> , 1982, "Dramatic growth of mice that develop from eggs microinjected with metallothionein - growth hormone fusion genes", <i>Nature</i> 300:611-615.
	AU	Palmiter <i>et al.</i> , 1983, "Metallothionein-Human GH fusion genes stimulate growth of mice", <i>Science</i> 222:809-814.
	AV	Hammer, 1985, "Expression of human growth hormone-releasing factor in transgenic mice results in increased somatic growth", <i>Nature</i> 315:413-416.
	AW	McGrane <i>et al.</i> , 1988, "Tissue-specific expression and dietary regulation of a chimeric phosphoenolpyruvate carboxykinase/bovine growth hormone gene in transgenic mice", <i>J. Biol. Chem.</i> 263:11443-11451.
	AX	Kopchick <i>et al.</i> , 1989, "Direct DNA transfer and molecular approaches to animal growth", <i>Brazil. J. Genetics</i> 12:37-54.
	AY	Chou and Fasman, 1974, "Prediction of protein conformation", <i>Biochemistry</i> 13:222-245.
	AZ	Kaiser, 1987, "Design of amphiphilic peptides", in: <i>Protein Engineering</i> (Oxender and Fox, eds) 193-199.
	BA	DeGrado <i>et al.</i> , 1981, "Design, synthesis and characterization of a cytotoxic peptide with melittin-like activity", <i>J. Am. Chem. Soc.</i> 103:679-681.
	BB	DeGrado <i>et al.</i> , 1982, "Kinetics and mechanism of hemolysis induced by melittin and by a synthetic melittin analogue", <i>Biophys. J.</i> 37:339-338.
	BC	Tou <i>et al.</i> , 1986, "Amphiphilic growth hormone releasing factor (GRF) analogs: Peptide design and biological activity <i>in vivo</i> ", <i>Biochem. Biophys. Res. Comm.</i> 139:763-770.
	BD	Brems <i>et al.</i> , 1988, "Stabilization of an associated folding intermediate of bovine growth hormone by site-directed mutagenesis", <i>Proc. Natl. Acad. Sci.</i> 85:3367-3371.
	BE	Smith and Talamantes, 1987, "Identification and characterization of heterogenous population of growth hormone receptors", <i>J. Biol. Chem.</i> 262:2213-2219.
	BF	Sporn <i>et al.</i> , 1986, "Transforming growth factor-beta: Biological function and chemical structure", <i>Science</i> 233:532-534.
	BG	Chen <i>et al.</i> , 1990, "Expression of a mutated bovine growth hormone gene suppresses growth of transgenic mice", <i>Proc. Natl. Acad. Sci.</i> 87:5061-5065.
↓	BH	Alan R. Liss Inc., 1987, "Protein Engineering", pp.193-199.

<i>CS</i>	BI	Cunningham <i>et al.</i> , 1989, "Receptor and antibody epitopes in human growth hormone identified by homolog-scanning mutagenesis", <i>Science</i> 243:1330-1336.
	BJ	Chen <i>et al.</i> , 1992, "Conversion of bovine growth hormone cysteine residues to serine affects secretion by cultured cells and growth rates in transgenic mice", <i>Mol. Endocrinology</i> 6:598-606.
	BK	Chen <i>et al.</i> , 1991, "Functional antagonism between endogenous mouse growth hormone (GH) and a GH analog results in dwarf transgenic mice", <i>Endocrinology</i> 129:1402-1408.
	BL	Chen <i>et al.</i> , 1991, "Glycine 119 of bovine growth hormone is critical for growth promoting activity" <i>Mol. Endocrinology</i> 5:1845-1852.
	BM	Chen <i>et al.</i> , 1991, "Mutations in the third $\alpha$ -helix of bovine growth hormone dramatically affect its intracellular distribution <i>in vitro</i> and growth enhancement in transgenic mice", <i>J. Biol. Chem.</i> 266:2252-2258.
	BN	Chen <i>et al.</i> , 1992, "Receptor binding mitogenic activity and transgenic mouse studies on bGH-hGH analogs", <i>FASEB J.</i> 6:A1344.
	BO	Chen <i>et al.</i> , 1992, "Substitution mutations at Lysine-64 (K64) of bovine growth hormone (bGH) affect receptor binding affinities and growth rates of transgenic mice", <i>FASEB J.</i> 5:A424.
	BP	Cunningham <i>et al.</i> , High resolution epitope mapping of hGH-receptor interactions by alanine scanning mutagenesis", <i>Science</i> 244:1081-1085.
	BQ	Goeddel <i>et al.</i> , 1979, "Direct expression in Escherichia Coli of a DNA sequence coding for human growth hormone", <i>Nature</i> 281:544-548.
	BR	Kopchick and Cioffi, 1991, "Exogenous and endogenous effects of growth hormone in animals", <i>Livest. Prod. Sci.</i> 27:61-75.
	BS	McAndrew <i>et al.</i> , 1991, "Effects of a leucine analog on growth hormone processing and secretion by cultured cells", <i>J. Biol. Chem.</i> 266:15016-15020.
	BT	McAndrew <i>et al.</i> , 1991 "Expression of truncated forms of the bovine growth hormone gene in cultured mouse cells", <i>J. Biol. Chem.</i> 266:20956-20969.
	BU	Okada <i>et al.</i> , 1992, "A growth hormone (GH) analog can antagonize the ability of native GH to promote differentiation of 3T3-F442A preadipocytes and stimulate insulin-like and lipolytic activities in primary rat adipocytes", <i>Endocrinology</i> 130:2284-2290.
	BV	Okada <i>et al.</i> , Antagonism of bovine growth hormone (bGH) stimulated glucose-transport by a bGH analog in 3T3-F442A adipose cells", <i>FASEB J.</i> 6:PA 1272.
	BW	Parks <i>et al.</i> , 1992, "Structural-functions studies of the first alpha-helix of bovine growth hormone", <i>FASEB J.</i> 6:A1345.
	BX	Seeborg <i>et al.</i> , 1992, "Efficient bacterial expression of bovine and porcine growth hormone", <i>DNA</i> 2(1):37-45.
↓	BY	Watahiki <i>et al.</i> , 1989, "Conserved and unique amino acid residues in the domains of the growth hormones", <i>J. Biol. Chem.</i> 264:312-316.

<i>CS</i>	BZ	Fuh <i>et al.</i> , 1992, "Rational design of potent antagonists to the human growth receptor", <i>Science</i> 256:1677-1680.
	CA	Yamasaki <i>et al.</i> , 1975, "Studies on the common active site of growth hormone. Revision of the amino acid sequence of an active fragment of bovine growth hormone", <i>J. Biol. Chem.</i> 250(7):2510-2514.
	CB	Zoller and Smith, 1987, "Oligonucleotide directed mutagenesis: A simple method using two oligonucleotide primers and a single-stranded DNA template", <i>Methods Enzymol.</i> 154:329-350.
	CC	
	CD	Bell <i>et al.</i> , 1991, "Diabetic nephropathy: Changing concepts of pathogenesis and treatment", <i>Am J Med Sci</i> 301(3):195-200.
	CE	Bratusch-Marrain <i>et al.</i> , 1982, "The effect of growth hormone on glucose metabolism and insulin secretion in man", <i>J Clin Endocrinol Metab</i> 55(5):973-982.
	CF	Chang <i>et al.</i> , 1987, "High-level secretion of human growth hormone by <i>Escherichia coli</i> ", <i>Gene</i> 55:189-196.
	CG	Chen <i>et al.</i> , 1994, "In vitro and in vivo studies of antagonistic effects of human growth hormone analogs", <i>J Biol Chem</i> 269(22):15892-15897.
	CH	Chen <i>et al.</i> , 1995, "Effects of streptozotocin treatment in growth hormone (GH) and GH antagonist transgenic mice", <i>Endocrinology</i> 136(2):660-667.
	CI	DeNoto <i>et al.</i> , 1981, "Human growth hormone DNA sequence and mRNA structure: Possible alternative splicing", <i>Nucleic Acids Res</i> 9(15):3719-3730.
	CJ	Doi <i>et al.</i> , 1990, "Glomerular lesions in mice transgenic for growth hormone and insulinlike growth factor-1", <i>Am J Pathol</i> 137(3):541-552.
	CK	Doi <i>et al.</i> , 1988, "Progressive glomerulosclerosis develops in transgenic mice chronically expressing growth hormone and growth hormone releasing factor but not in those expressing insulinlike growth factor-1", <i>Am J Pathol</i> 131(3):398-403.
	CL	Foley <i>et al.</i> , 1995, "The effect of growth hormone on a mouse model of proliferative retinopathy", <i>Invest Ophthalmol Visual Sci</i> 36(4):Abstract.
	CM	Froesch <i>et al.</i> , 1985, "Actions of insulin-like growth factors", <i>Ann Rev Physiol</i> 47:443-467.
	CN	Gerich, 1984, "Role of growth hormone in diabetes mellitus", <i>New Engl J Med</i> 310(13):848-850.
	CO	Graf <i>et al.</i> , 1976, "Action of thrombin on ovine, bovine and human pituitary growth hormones", <i>Eur J Biochem</i> 64:333-340.
↓	CO	Leung <i>et al.</i> , 1986, "Purification and physiochemical properties of a recombinant bovine growth hormone produced by cultured murine fibroblasts", <i>Endocrinol</i> 119(4):1489-1496.

CA	CP	MacGorman <i>et al.</i> , 1981, "Physiological concentrations of growth hormone exert insulin-like and insulin antagonistic effects on both hepatic and extrahepatic tissues in man", <i>J Clin Endocrinol Metab</i> 53(3):556-559.
	CQ	Melmed <i>et al.</i> , 1994, "Consensus Statement: Benefits versus risks of medical therapy for acromegaly", <i>Am J Med</i> 97:468-473.
	CR	Mercado <i>et al.</i> , 1994, "Distribution of growth hormone receptor messenger ribonucleic acid containing and lacking exon 3 in human tissues", <i>J Clin Endocrinol Metab</i> 78(3):731-735.
	CS	Merimee, 1978, "A follow-up study of vascular disease in growth-hormone-deficient dwarfs with diabetes", <i>New Engl J Med</i> 298(22):1217-1222.
	CT	Miller <i>et al.</i> , 1980, "Molecular cloning of DNA complementary to bovine growth hormone mRNA", <i>J Biol Chem</i> 255(16):7521-7524.
	CU	Ng <i>et al.</i> , 1974, "Insulin potentiating action of synthetic peptides relating to the amino terminal sequence of human growth hormone", <i>Diabetes</i> 23(12):943-949.
	CV	Pesce <i>et al.</i> , 1991, "Glomerulosclerosis at both early and late stages is associated with increased cell turnover in mice transgenic for growth hormone", <i>Lab Invest</i> 65(5):601-605.
	CW	Press <i>et al.</i> , 1984, "Importance of raised growth hormone levels in mediating the metabolic derangements of diabetes", <i>New Engl J Med</i> 310(13):810-814.
	CX	Robins <i>et al.</i> , 1982, "Regulated expression of human growth hormone genes in mouse cells", <i>Cell</i> 29:623-631.
	CY	Rymaszewski <i>et al.</i> , 1991, "Human growth hormone stimulates proliferation of human retinal microvascular endothelial cells <i>in vitro</i> ", <i>Proc Natl Acad Sci USA</i> 88:617-621.
	CZ	Stewart <i>et al.</i> , 1992, "An evaluation of the functions of the 22-kilodalton (kDa), the 20-kDa, and the N-terminal polypeptide forms of human growth hormone using transgenic mice", <i>Endocrinol</i> 130(1):405-414.
	DA	Strobl and Thomas, 1994, "Human growth hormone", <i>Pharmacological Reviews</i> 46(1):1-34.
	DB	Vance and Harris, 1991, "Long-term treatment of 189 acromegalic patients with the somatostatin analog octreotide", <i>Arch Intern Med</i> 151:1573-1578.
	DC	Weigent and Blalock, 1995, "Growth hormone effects on the immune system", in <u>Human Growth Hormone Pharmacology: Basic and Clinical Aspects</u> , Shiverick and Rosenbloom (eds.) pp. 141-151.
	DD	Woychik <i>et al.</i> , 1982, "Cloning and nucleotide sequencing of the bovine growth hormone gene", <i>Nucleic Acids Res</i> 10(22):7197-7210.
	DE	Yang <i>et al.</i> , 1993, "Glomerulosclerosis in mice transgenic for native or mutated bovine growth hormone gene", <i>Kidney International</i> Vol. 43, Suppl. 39, pp. S90-S94.
	DF	Yang <i>et al.</i> , 1993, "Glomerulosclerosis and body growth are mediated by different portions of bovine growth hormone", <i>Lab Invest</i> 68(1):62-70.

<input checked="" type="checkbox"/>	DG	Zapf and Froesch, 1986, "Insulin-like growth factors/somatomedins: Structure, secretion, biological actions and physiological role", Hormone Res 24:121-130.

EXAMINER	Christine Saoud	DATE CONSIDERED
9/6/96		
<b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		